Geographical Patterns of Membership in U.S. Environmental Organizations

Thomas A. Wikle
Oklahoma State University

This county-level study examines the locational concentrations of membership in a sample of national environmental organizations. Maps of location quotients indicate distinct regions of high and low membership concentrations, with membership most concentrated in the Northeast, West, and Rocky Mountain states. The results may be helpful in identifying general patterns of environmental concern in different U.S. regions. **Key Words: environmental organizations, membership, location quotients, United States.**

Introduction

Although making up less than one percent of the U.S. population, members of environmental groups have successfully influenced the use of land and natural resources worth billions of dollars through activities ranging from publicity campaigns and letter writing to lobbying and litigation (Milbrath 1984). At the same time that they have become more successful in reaching their objectives, many of these groups have undergone transformations that set them apart from their grassroots beginnings. Environmental groups are now more diversified in their interests, have increased financial and political leverage, and claim more members than at any time in history. Along with changes in their purposes has come a shift in the character of their membership. New members are no longer exclusively the young who were the vanguard of the environmental movement 20 years ago (Schwartz 1990). Groups that once recruited new members on college campuses now exchange mailing lists and conduct market surveys to expand membership.

Milbrath (1984) notes that there are approximately 12,000 environmental and conservation groups in the United States. These organizations range in size from community-based grassroots groups to large national associations. According to the National Wildlife Federation (1993), there are over 400 environmental groups in the United States claiming to be national in scope. While particular groups have become very specialized in their expertise and goals, others are more broad in their interests and objectives, combining environmental or conservation goals with educational or instructional programs for members (Harry et al. 1969).

The purpose of this study is to explore the spatial patterns of membership in environmental groups within the United States using data provided for 10 national organizations. In this paper, environmental organizations and conservation organizations are treated as equivalent in meaning. The study's primary objectives are to reveal the spatial character of environmental group membership and to identify U.S. regions that have the highest concentrations of members. The results presented may be helpful in identifying general patterns of environmental concern within the United States.

Environmental Organizations

Growth

Significant growth in the number of new environmental organizations has taken place in the last 25 years. Between the years 1901 to 1960 there was an average of only three new public interest conservation groups per year, compared with an average of 18 new groups per year between 1961 and 1980 (Scheffer 1991). The upswing in environmental interest during this century may be the result of Americans beginning to recognize the symptoms of environmental abuse.

Although declining slightly during the late 1970s, support for the environment remained surprisingly strong in the face of energy crises, economic downturns, and tax revolts (Dunlap 1987). A considerable rise in membership in

Professional Geographer, 47(1) 1995, pages 41–48
Initial submission, February 1994; revised submission, June 1994; final acceptance, June 1994.
Published by Blackwell Publishers, 238 Main Street, Cambridge, MA 02142, and 108 Cowley Road, Oxford, OX4 1JF, UK.

many environmental groups took place during the early years of the Reagan Administration, largely in response to the dismantling or nonenforcement of environmental policies by Secretary of the Interior James Watt and EPA Administrator Anne Gorsuch (Milbrath 1984; Dunlap 1987; Cutter et al. 1991). By the end of the 1980s, 76% of Americans identified themselves as "environmentalists" and about half that proportion considered themselves strong environmentalists (Gallup 1989).

Membership

Environmental organization members may be categorized according to their motivations for joining a group. Faich and Gale (1971) and Jocoby and Babchuk (1963) differentiate between instrumental voluntary associations where members are committed to goals that may not contribute to their own personal well-being or gratification, and expressive organizations that focus on activities intended for the benefit of members. Hendee et al. (1969) used the instrumental-expressive distinction to describe both conservation organizations and their individual members. "Instrumental conservationists" were defined as organizations or members who may participate in outdoor recreation, but focus their efforts on "the protection of areas and environments that members themselves may not have visited" (Hendee et al. 1969, 213). Such members may have stronger beliefs that they can influence environmental policy than does the general public (Milbrath 1981). "Expressive conservationists" are groups or individuals whose concerns are directed toward the primary recreation goals of the organization.

Many leisure-based outdoor recreation organizations that were initially dedicated to expressive, membership-oriented goals have become increasingly more instrumentally involved in the environmental movement. In separate studies of the Sierra Club, Faich and Gale (1971) and Coombs (1972) found that the reason cited by most members for joining the club has shifted from recreation mixed with concern for wilderness to general environmental quality issues. While the membership of some is limited to a monetary donation as a form of passive support for environmental causes, others volunteer considerable time and effort as active members (Mazur 1981; Manzo and Weinstein 1987).

Membership Rates

The association between upper-middle class social status and membership in voluntary organizations is well documented (Hausknecht 1962; Harry et al. 1969; Devall 1970; Coombs 1972; Van Liere and Dunlap 1980). Higher rates of membership have also been shown to be associated with higher education levels and high-status occupations (Harry et al. 1969; Defee et al. 1974; Milbrath 1984). A large body of literature also has addressed the relationship between other socioeconomic characteristics of the population, such as age, urban or rural residence, political orientation, and recreation participation, and concern for the environment.

Most studies that have examined age as a correlate to interest in the environment suggest that younger people are more environmentally oriented than older persons (Buttel and Flinn 1977; McTeer 1978). Although the negative correlation between age and environmental concern has been shown to be statistically significant, the correlations are generally low. Furthermore, more recent national surveys suggest that the highest percentage of persons with strong environmental concerns may have shifted among age groups. A 1989 Gallup poll found that strong identification with environmental concerns may be more common among people in the 50 and older age group (49%) than among 30–49 year olds (39%) or those under 30 (31%).

Van Liere and Dunlap (1980) suggest that urban residents are more concerned with environmental problems since they are exposed to higher levels of pollution and other environmental degradation than are rural residents. Hendee (1969) notes that rural residents are more likely than urbanites to have a utilitarian orientation toward the natural environment because their occupations, such as logging, mining, or farming, are "extractive." Dunlap and Hefferman (1975) demonstrate a positive relationship between participation in outdoor recreation activities and environmental concern, especially where the recreation is "nonconsumptive" such as hiking or camping. Studies have also shown that Democrats and liber-

als are more concerned about environmental quality than are their Republican and conservative counterparts (Buttel and Flinn 1976; Dunlap and Allen 1976; Mitchell 1980; League of Conservation Voters 1992).

Despite significant interest in the use of socioeconomic factors for explaining the extent of environmental group membership and environmental concern, researchers have experienced only limited success statistically in accounting for variation in membership rates. An examination by Van Liere and Dunlap (1980) of over 20 studies found that sociodemographic variables explain only about 10 to 15% of the variance in environmental concern. Kuzmiak (1991) notes that the combined net effects of education, income, and occupation are only weak predictors of support for environmental reform. Such findings may reflect a broadening of environmental concern that appears to have increasingly transcended socioeconomic stations.

In comparison to the socioeconomic characteristics of members in environmental groups, comparatively little has been written concerning spatial patterns of environmental membership. Ferguson's (1985) study is the only one that has examined state patterns of membership for U.S. environmental organizations. This analysis used a ranking system that identified higher membership concentrations in the West and Northeast and moderate membership levels in the South. Given the limited attention directed at examining spatial patterns of environmental group membership, this study seeks to build on Ferguson's findings using a county rather than state level analysis.

Methods

Fifty U.S. environmental organizations were asked to supply zip code locational information concerning their 1993 U.S. membership. These groups were chosen to capture the diversity of national environmental issues and interests in the United States. From this group, 18 organizations agreed to provide the requested information. Since membership lists were provided without names or street addresses to maintain the confidentiality of individuals, cross-memberships (individuals belonging to more than one of the organizations) could not be identified. Membership within each zip code was aggregated to the county scale in order to determine the ratio of membership to population within each county.

Location quotients (LQs) were used to identify spatial patterns of membership. The LQ is a value that is useful for determining the concentration of an activity (membership in environmental organizations) in an areal unit in comparison to the presence of some other activity (population). The location quotient for a county (LQ) was computed using the following equation:

$$LQ_c = \frac{M_c}{M_n} \Big/ \frac{P_c}{P_n} \qquad (1)$$

where M_c = the number of memberships in the county; P_c = the population of the county; M_n = the number of memberships in the United States; and P_n = the population of the United States. An LQ value greater than 1.0 indicates that the county has a greater share of membership than population, while an LQ value of less than 1.0 indicates underrepresentation of membership in the county. Griffith and Amrhein (1991) note that LQ values are very useful for comparisons since the measure is independent of scale. However, LQ values can be problematic in that they have no upper limit and values below the national norm are compressed between 0 and 1.0.

An initial analysis was helpful in eliminating eight of the groups that had regionally biased membership distributions. Regionally biased organizations were identified as groups having less than 50% of their members living outside of the state in which the organization was headquartered (e.g., the Grand Canyon Trust). The remaining 10 organizations whose membership was nationally based were used in the study to examine membership variation across the United States (Table 1). The ten groups included in the analysis represent two distinct periods of the conservation/environmental movement. Five of the groups (African Wildlife Foundation, American Birding Association, The Nature Conservancy, World Wildlife Fund, and Zero Population Growth) were part of the early conservation movement, while the other five (American Rivers, Bat Conservation International, Natural Resources De-

Table 1 *Environmental Organizations Used in the Study*

Organization	Year Founded	U.S. Memberships in 1993
African Wildlife Foundation	1961	72,000
American Birding Association	1969	94,000
American Rivers	1973	41,000
Bat Conservation International	1982	11,000
Natural Resources Defense Council	1970	130,000
Nature Conservancy	1951	706,000
Rainforest Action Network	1985	44,000
Sea Shepherd Conservation Society	1979	16,000
World Wildlife Fund	1961	1,400,000
Zero Population Growth	1968	52,000

fense Council, Rainforest Action Network, and Sea Shepherd Conservation Society) were founded after 1970 and represent a direct outgrowth of the newer environmentalism.

An additional statistic, the coefficient of localization (CL), was computed for each state and the nation as a whole. The CL is a form of gini coefficient that provides a summary measure of the spatial concentration of membership relative to the distribution of population within each state. The equation for the coefficient is:

$$CL_s = {}^1/_2 \sum \left| \frac{M_c}{M_s} - \frac{P_c}{P_s} \right| \qquad (2)$$

where M_c is county membership, P_c is county population, M_s is state membership, and P_s represents state population. Coefficients range from 0 to 1.0 with values near 1.0 representing situations where membership and population are located in nearly mutually exclusive areas, while values near 0 indicate that the two distributions are very similar. As Joseph (1982) suggests, the upper limit of the CL value is related to the underlying spatial pattern of the population.

Findings

Figure 1 displays county location quotients using the composite membership of the 10 or-

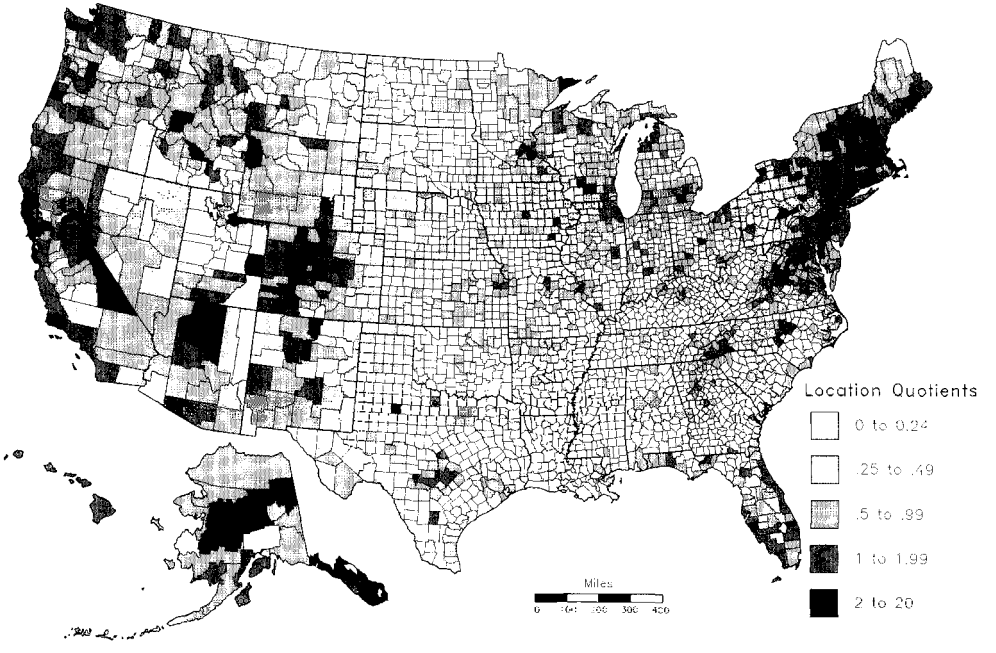

Figure 1: *Membership in environmental organizations: location quotients for counties, 1993.*

ganizations. The county-level membership densities demonstrate a clustering of high value counties in the Northeast, along the Pacific Coast, and in mountainous portions of the Rocky Mountain states, especially Colorado. Some care must be exercised in map interpretation since large but sparsely populated counties (or county equivalents) in Alaska, Arizona, and California may overstate their importance. A few outlier counties with high membership levels but very small populations, such as Kent County in west-central Texas, may also cause the same problem.

Regional differences in the density of environmental organization memberships can also be summarized by displaying LQ values at the state scale (Fig. 2). High membership concentrations in the Northeast and Colorado and low densities for most of the South are again indicated; however, the Pacific Northwest states of Washington and Oregon are more clearly shown on Figure 2 as areas having high membership levels.

Table 2 provides a list of states in order of their LQ values. Given the large number of lobbyists, environmental professionals, and resident staff with national environmental organizations in the area, it is not surprising that the District of Columbia had the highest LQ value. The northeastern states of Vermont, Connecticut, Maine, and New Hampshire, the western states of Hawaii, Oregon, and Washington, and the state of Colorado also had very high LQ values (Fig. 2). Eight of the ten states with the lowest values were located in the southern United States. Florida stands out as a notable exception to this pattern, a situation that may reflect social differences brought to the South by retirees who maintain their memberships after migrating from elsewhere in the United States.

The degree of spatial concentration of membership within each state can be examined using the coefficient of localization (Table 2). Alaska has a very high CL value, indicating high concentrations of members in areas that contain relatively few people. Also, an examination of LQ values for counties (Fig. 1) reveals patterns of membership within states Values for Colorado's counties range fron

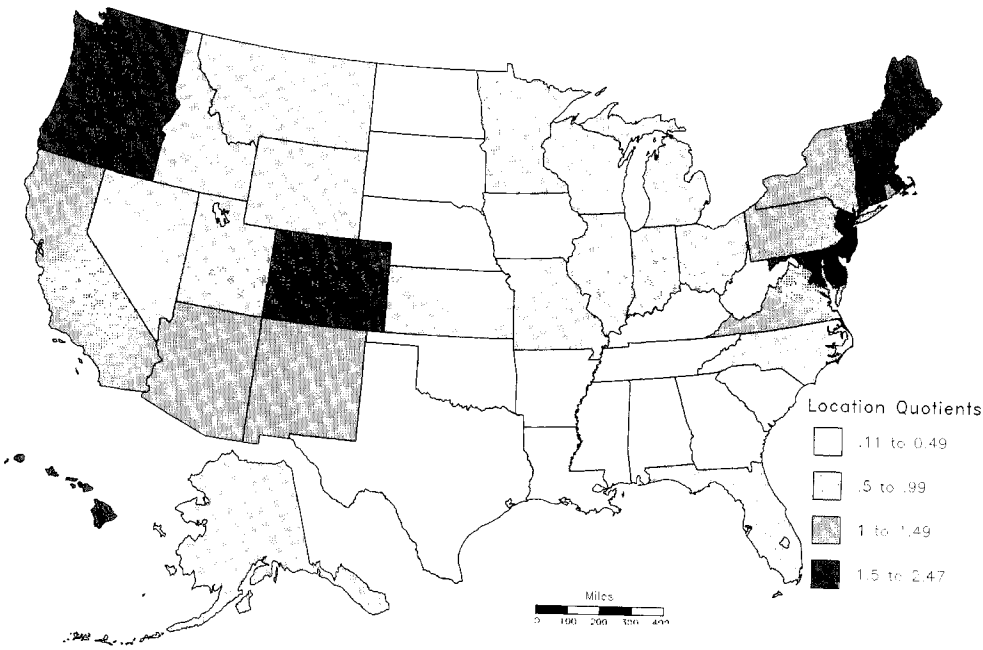

Figure 2: *Membership in environmental organizations: location quotients for states, 1993.*

Table 2 *Membership in Environmental Organizations: Location Quotients (LQ) and Coefficients of Localization (CL) for States**

State	LQ	CL	State	LQ	CL	State	LQ	CL
District of Columbia	2.47	–	Virginia	1.14	0.30	Indiana	.54	0.15
Vermont	2.43	0.13	Pennsylvania	1.07	0.19	Kansas	.53	0.18
Connecticut	1.95	0.09	New Mexico	1.06	0.29	Texas	.49	0.20
Hawaii	1.83	0.03	Illinois	1.00	0.14	South Carolina	.49	0.22
Maine	1.75	0.18	Montana	.99	0.21	Georgia	.48	0.29
New Hampshire	1.72	0.08	Florida	.97	0.16	Nebraska	.47	0.19
Colorado	1.67	0.19	Nevada	.95	0.13	Iowa	.42	0.17
Oregon	1.64	0.12	Wisconsin	.91	0.16	Tennessee	.39	0.21
Massachusetts	1.63	0.15	Minnesota	.90	0.21	Kentucky	.34	0.31
Maryland	1.61	0.20	Wyoming	.83	0.22	Oklahoma	.31	0.20
Washington	1.55	0.18	Ohio	.80	0.16	Louisiana	.30	0.25
New Jersey	1.54	0.12	Michigan	.78	0.17	Alabama	.26	0.23
Delaware	1.53	0.11	Idaho	.74	0.30	West Virginia	.25	0.18
California	1.50	0.14	Alaska	.68	0.50	Arkansas	.25	0.29
New York	1.44	0.20	Utah	.64	0.20	South Dakota	.21	0.21
Arizona	1.31	0.29	North Carolina	.62	0.28	Mississippi	.11	0.26
Rhode Island	1.26	0.13	Missouri	.60	0.22	North Dakota	.11	0.16

**The coefficient of location for the United States is .24.*

12.29 in Gilpin County to 0.18 in Cheyenne County and are highest in mountainous central and western portions of the state. Coastal counties in Maine, California, and Florida also differ from inland areas of these states.

Table 3 provides LQ values for the 25 highest ranking U.S. counties. Two county-equivalents in Alaska, Skagway-Yakutat and Yukon-Koyukok, had the highest LQs of 20.01 and 13.72, respectively. The Skagway-Yakutat area, located on the panhandle of Alaska, includes the Tongas National Forest, the site of an ongoing and much publicized conflict between environmentalists and the U.S. Forest Service

Table 3 *Highest Ranking U.S. Counties on the Location Quotient, and Selected Socioeconomic Measures*

					Per Capita	Income	%High School Graduate 1990		%Bachelors Degree Graduate 1990	
Rank	County	State	1990 Population	Location Quotient	County Average	State Average	County Average	State Average	County Average	State Average
1	Skagway-Yakutat	AK	4,385	20.01	15,463	17,610	79.3	86.6	15.8	23.0
2	Yukon-Koyukok	AK	8,478	13.72	11,554	17,610	73.2	86.6	13.8	23.0
3	Gilpin	CO	3,070	12.29	15,267	14,821	93.0	84.4	29.5	27.0
4	Pitkin	CO	12,661	11.04	26,755*	14,821	94.7	84.4	49.8	27.0
5	Williamsburg	VA	11,530	7.38	11,822	15,713	83.7	75.2	42.9	24.5
6	San Miguel	CO	3,653	6.97	16,454	14,821	93.5	84.4	40.3	27.0
7	San Juan	WA	10,035	6.67	21,013*	14,923	91.2	83.8	33.5	22.9
8	Teton	WY	11,172	6.55	17,234*	12,311	91.2	83.0	30.0	18.8
9	Falls Church	VA	9,578	6.06	26,709*	15,713	91.4	75.2	52.8	24.5
10	Blaine	ID	13,552	5.73	19,979*	11,457	91.4	79.7	33.0	17.7
11	Marin	CA	230,096	5.42	28,381*	16,409	91.9	76.2	44.0	23.4
12	Nantucket	MA	6,012	5.02	20,591	17,224	84.4	80.0	32.9	27.2
13	Dukes	MA	11,639	4.85	18,280	17,224	90.4	80.0	32.1	27.2
14	Los Alamos	NM	18,115	4.62	22,900*	11,246	94.7	75.1	53.4	20.4
15	Inyo	CA	18,281	4.58	13,397	16,409	81.7	76.2	13.5	23.4
16	Summit	CO	12,881	4.32	17,400	14,821	95.5	84.4	39.7	27.0
17	Arlington	VA	170,936	3.94	25,633*	15,713	87.5	75.2	52.3	24.5
18	Boulder	CO	225,339	3.83	17,359	14,821	91.3	84.4	42.1	27.0
19	Jefferson	WA	20,146	3.74	13,551	14,923	82.7	83.8	21.8	22.9
20	Ouray	CO	2,295	3.72	13,208	14,821	87.5	84.4	27.9	27.0
21	Montgomery	MD	757,027	3.48	25,591	17,730	90.6	78.4	49.9	26.5
22	Rappahannock	VA	51,157	3.42	17,260	15,713	67.2	75.2	18.9	24.5
23	Santa Fe	NM	98,929	3.31	15,327	11,246	82.6	75.1	32.3	20.4
24	Windham	VT	41,588	3.23	13,134	13,527	81.7	80.8	25.2	24.3
25	Eagle	CO	18,202	3.20	18,202	14,821	89.8	84.4	33.0	27.0

Source: U.S. Department of Commerce 1990.
**highest per capita income in state.*

over the cutting of old growth trees. The Yukon-Koyukok area extends from the Canadian border northeast of Fairbanks across central Alaska and includes several national wildlife refuges and two national parks. High membership levels in these two areas may reflect grassroots support for environmental causes.

Seven of the 25 counties contain large ski resorts that attract the upper-middle class, including Pitkin (Snowmass and Aspen), San Miguel (Telluride), Teton (Jackson Hole), Blaine (Sun Valley), Summit (Breckenridge), Santa Fe (Santa Fe), and Eagle (Vail). Income and educational attainment of persons living in these counties were higher than their respective state average (Table 3). Several of the 25 areas are suburban counties adjacent to large cities such as Denver (Gilpin), Seattle (San Juan), Washington, DC (Falls Church, Arlington, and Montgomery) and San Francisco (Marin). These counties also have high average income and educational attainment. Other predominantly upper-middle class counties in the top 25 included Nantucket and Dukes counties in Massachusetts and Los Alamos in New Mexico. High LQ values for Jefferson, Rappahannock, and Inyo counties may be tied to preservation or environmental interests associated with Olympic National Park, Shenandoah National Park, and Death Valley National Monument, respectively.

With only a few exceptions, high membership levels appear to be associated with counties having one or more of the following characteristics: predominantly upper-middle class residents, significant outdoor recreation opportunities, or conflicts tied to threatened resources. It may be possible that members in counties with high average income and education but few outdoor recreation opportunities possess a general environmental concern that reflects altruism or a broad long-term notion of self-interest. In contrast, publicized problems may attract new environmental group members in counties with less affluent or less educated residents when people believe their immediate self-interests are being threatened.

A possible limitation found in this kind of analysis is its sensitivity to the number of members in each of the organizations. Two of the organizations in the study, the World Wildlife Fund and the Nature Conservancy, accounted for 82% of the total membership and therefore dominated the spatial patterns displayed in Figures 1 and 2. However, correlations at the state scale between these two organizations and seven of the eight remaining groups ranged between .86 and .97, suggesting that the underlying patterns of membership among the organizations are very similar. Only the American Birding Association was found to have correlation coefficients that differed considerably from the other groups such as the Nature Conservancy (.12) and the Natural Resources Defense Council (.04).

Conclusions

County-based LQs for environmental group membership reveal regional patterns across the United States, with states in the North, West, and Rocky Mountains having higher concentrations than those in the South or Midwest. In some cases, patterns within states also indicated variation, with more affluent counties and those located in areas with significant outdoor recreation opportunities having higher levels of environmental group membership. Places having much higher membership rates than would be predicted from their social and economic characteristics were also identified and include such areas as Skagway-Yakutat and Yukon-Koyukok in Alaska. As Milbrath (1984) suggests, these areas may have larger numbers of members because of resource threats that initiate interest among local residents who might not otherwise join an environmental organization. As Manzo and Weinstein (1987) note, in some cases this locally generated interest becomes transformed into a long-term environmental commitment.

Disparities in membership levels revealed by this analysis suggest that this area of inquiry merits a longitudinal test in order to determine whether or not these spatial patterns persist over time. While past research concerning environmental organizations has focused on national groups and their local subunits, it would be interesting to examine the spatial character of local organizations to determine whether or not their spatial patterns and socioeconomic bases of support are similar to those of national groups. This analysis would help provide a more complete picture of the distribution of environmental group membership in the United States. ■

Literature Cited

Buttel, F. H., and W. L. Flinn. 1976. Environmental politics: The structuring of partisan and ideological cleavages in mass environmental attitudes. *Sociological Quarterly* 17:477–90.

Buttel, F. H., and W. L. Flinn. 1977. Conceptions of rural life and environmental concern. *Rural Sociology* 42:544–55.

Coombs, D. 1972. The club looks at itself. *Sierra* 57:35–39.

Cutter, S., H. L. Renwick, and W. H. Renwick. 1991. *Exploitation, Conservation, Preservation: A Geographic Perspective on Natural Resource Use.* New York: John Wiley and Sons.

Defee, J. F., J. H. Schultz, and R. A. Pasewark. 1974. Occupational level and organizational membership. *Journal of Leisure Research* 6:20–26.

Devall, W. B. 1970. Conservation: An upper-middle class social movement: A replication. *Journal of Leisure Research* 2:123–25.

Dunlap, R. E. 1987. Polls, pollution, and politics revisited. *Environment* 29:5–37.

Dunlap, R. E., and M. P. Allen. 1976. Partisan differences on environmental issues: A congressional roll-call analysis. *Western Political Quarterly* 29:384–97.

Dunlap, R. E., and R. B. Hefferman. 1975. Outdoor recreation and environmental concern: An empirical examination. *Rural Sociology* 40:18–30.

Faich, R. G., and R. P. Gale. 1971. The environmental movement: From recreation to politics. *Pacific Sociological Review* 14:270–87.

Ferguson, K. A. 1985. Toward a Geography of Environmentalism in the United States. Masters thesis, California State University, Hayward, CA.

Gallup, G. H. 1989. The Gallup Poll. Wilmington, DE: Scholarly Resources.

Griffith, D. A., and C. G. Amrhein. 1991. *Statistical Analysis for Geographers.* Englewood Cliffs, N.J.: Prentice Hall.

Harry, J., R. P. Gale, and J. C. Hendee. 1969. Conservation: An upper-middle class social movement. *Journal of Leisure Research* 1:246–54.

Hausknecht, M. 1962. *The Joiners.* New York: Bedminister Press.

Hendee, J. C. 1969. Rural-urban differences reflected in outdoor recreation participation. *Journal of Leisure Research* 1:333–41.

Hendee, J. C., R. P. Gale, and J. Harry. 1969. Conservation, politics, and democracy. *Journal of Soil and Water Conservation* 24:212–15.

Jacoby, A. P., and N. Babchuk. 1963. Instrumental and expressive voluntary associations. *Sociology and Social Research* 47:461–71.

Joseph, A. E. 1982. On the interpretation of the coefficient of localization. *Professional Geographer* 34:443–46.

Kuzmiak, D. T. 1991. The American environmental movement. *Geographical Journal* 157:265–78.

League of Conservation Voters. 1992. *The 1989 National Environmental Scorecard.* Washington, DC: League of Conservation Voters.

Manzo, L. C., and N. D. Weinstein. 1987. Behavioral commitment to environmental protection. *Environment and Behavior* 19:673–94.

Mazur, A. 1981. *The Dynamics of Technical Controversy.* Washington, DC: Communication Press.

McTeer, J. H. 1978. Teenage-adult differences in concern for environmental quality. *Journal of Environmental Quality* 9:20–23.

Milbrath, L. W. 1981. U.S. Component of a Cooperative Study of Environmental Beliefs and Values. Occasional Paper Series, Environmental Studies Center, State University of New York at Buffalo.

Milbrath, L. W. 1984. *Environmentalists: Vanguard for a New Society.* Albany, NY: University of New York Press.

Mitchell, R. C. 1980. How "soft," "deep," or "left?" Present constituencies in the environmental movement for certain world views. *Natural Resources Journal* 20:345–57.

National Wildlife Federation. 1993. *Conservation Directory.* Washington, DC: National Wildlife Federation.

Scheffer, V. B. 1991. *The Shaping of Environmentalism in America.* Seattle: University of Washington Press.

Schwatz, J. 1990. Earth day today. *American Demographics* 12:40–41.

U.S. Department of Commerce. 1990. *Census of Population and Housing.* Washington, DC: U.S. Government Printing Office.

Van Liere, K. D., and R. E. Dunlap. 1980. The social bases of environmental concern: A review of hypotheses, explanations and empirical evidence. *Public Opinion Quarterly* 44:181–97.

THOMAS A. WIKLE is Associate Professor and Head of the Department of Geography at Oklahoma State University, Stillwater, OK 74078. His research interests include linguistic geography and environmental planning.